

## January Meeting Practical Application of Chaos Theory to Systems Engineering

**Speaker:** David Curry

*Boeing Software/Systems Engineer*

**Date & Location:** 18 January 2012, Boeing Building 305 Conf Rm 190C  
**Brown Bag Lunch / Presentation:** 11:30 a.m. - 12:30 p.m.

**Abstract:** Chaos Theory has been successfully applied to predict the long-term behavior of numerous biological systems using a technique known as a "Recurrence Plot". This same method should prove useful in Systems Engineering as well. Recurrence Plots can reveal long-term and emergent behavior in complex systems. This technique may be used in Systems Engineering in such diverse areas as Systems Architecture (predicting emergent behaviors in Complex Systems) and Program Management (predicting long-term stability). The utility of Recurrence Plots in the field of Systems Engineering will be demonstrated as well as establishing the requisite criteria and the technique itself. Future work as well as other approaches and how they compare will also be addressed.

**Biography:** Mr. Curry holds a BS in Physics, MS in Physics, and MS in Computer Science from University of North Texas and MS in Systems Engineering from Missouri University of Science & Technology expected May 2012. Has worked for the Boeing Company since 2004 modeling sensors and weapons for AWACS, AEW&C, and F/A-18.

**Directions:** B305 is on McDonnell Blvd between I-270 and Lindbergh.

Reservations not required, but please contact Joanie Humbert ([Joan.Humbert@boeing.com](mailto:Joan.Humbert@boeing.com) or 314-232-0703) by 16 Jan to attend, for a snack count and badging for non-Boeing attendees. Non-Boeing attendees, please contact Bill Bezdek for meeting escort (cell:314-306-6210).

**No Cost**

Snacks provided by INCOSE.

Lunch is also available from Bldg 300 Cafeteria.

**Sponsored by:**

